Second Interaction and Engagement on Information Research and Learning with Lifelogging Devices (IRLLD 2017)[1]

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Abstract
iSchools have their roots in the collection, storage, analysis, and dissemination of archived materials of human activities. We foresee that sensing data via lifelogging devices (or Internet of Things at large) will eventually shape its significant part in the coming years. Information Research and Learning with Lifelogging Devices (IRLLD) aims to offer a unique opportunity to experience various lifelogging devices such as wearable video recorders, wearable cameras, GPS sensors, and audio recorders. Following the successful 1st IRLLD at iConference 2016 SIE (Joho, Gurrin, & Hopfgartner, 2016), the 2nd edition of IRLLD at iConference 2017 SIE offers extended lifelogging devices such as biometric sensors. IRLLD 2017 also demonstrates how to access a large lifelog dataset called NTCIR-12 Lifelog Test Collection, created by the organisers of IRLLD 2017. The intended audience includes information behavioural researchers (both qualitative and quantitative), multimedia and/or UI developers, students who want to improve their work/life experience, and educators who explores the ways to develop reflective learning programs using lifelogging data.

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1 Introduction

1.1 Purpose and Intended Audience

Wearable devices and mobile devices have become commodity, and collecting a massive amount of digitised personal lifelog data has become much easier than before. This creates many opportunities for iSchool researchers, developers, learners, and educators. Some of the recent topics studied in this domain includes (but are not limited to):

- How to conduct a mixed method study using conventional methods (e.g., questionnaires and interviews) and lifelogging devices
- How to develop a learning program that incorporates lifelogging as the core component
- How to synthesise data from lifelogging devices to enhance learning analytics (e.g., MOOCs)
- How to retrieve relevant objects from diverse personal multimedia collections
- How to visualise lifelog data to support recollecting, reminiscing, retrieving, reflecting, and remembering (Sellen & Whittaker, 2010)
- How to aggregate lifelog data for institutional lifelogging
- How to overcome privacy issues for various lifelogging applications

[1]http://irlld2017.computing.dcu.ie/

Figure 1: IRLLD at iConference 2016 (Left) and lifelogging devices to be demonstrated at iConference 2017 (Right).

- How to optimise lifelogging technologies to special social groups (e.g., senior citizens, children, etc.)

As can be seen, many of these challenges require to bridge among researchers, developers, learners, and educators, to fully leverage the power of lifelogging devices and their data. This session for interaction and engagement (SIE) at iConference 2017 is to create a living lab environment where participants can experience various lifelogging devices such as wearable video recorders, wearable cameras, GPS sensors, audio recorders, or biometric sensors. Participants can play with the wearable devices to see what kind of data can be collected, analysed, and visualized. The participants also have an opportunity to learn how to access a large lifelogging dataset created by the organiser of the SIE.

The intended audience includes information behavioural researchers (both qualitative and quantitative), multimedia and/or UI developers, students who want to improve their work/life experience, and educators who explores the ways to develop reflective learning programs using lifelogging data.

2 Organisers

IRLLD 2017 is internationally organized by the following team.

- Hideo Joho, Research Center for Knowledge Communities, Faculty of Library, Information and Media Science, University of Tsukuba, Japan.
- Cathal Gurrin, School of Computing, Dublin City University, Ireland.
- Frank Hopfgartner, Humanities Advanced Technology and Information Institute, University of Glasgow, UK.

Joho and Hopfgartner are from iSchool member institutions. Joho, Gurrin, and Hopfgartner have recently organised a panel session at JCDL 2015 (Gurrin & Hopfgartner, 2015), and a methodological panel at ASIS&T 2016 (Joho, Gurrin, Heinström, & Matsubayashi, 2016). Both panels motivated us to propose a technical SIE as a hands-on session with lifelogging devices at iConference 2017. The organising team is also co-organisers of NTCIR Lifelog Task (Gurrin, Joho, Hopfgartner, Zhou, & Albatal, 2016) which provides a large-scale reusable dataset for researchers and developers to develop and evaluate innovative lifelog systems (See http://ntcir-lifelog.computing.dcu.ie/ for detail).

3 Key participants

Following a success of IRLLD 2016[2], IRLLD 2017 was to set the various wearable devices as a central piece of the event, and to facilitate interactions different sectors of people such as researchers, developers, learners,

[2] http://irlld2016.computing.dcu.ie/

Session	Time	Duration	Event
1	10:30-12:00	15 min	Introduction: What is lifelogging?
		60 min	Hands-on Ssession: Lifelogging devices
		15 min	Tutorial: How to access a large lifelog data
2	13:30-15:00	30 min	Presentations 1: Teaching and learning with lifelogging devices
		30 min	Presentations 2: Processing and analysing lifelog data
		10 min	Q&A
		10 min	Round table: Challenges and future directions

Table 1: Tentative Schedule. Time is only illustrative.

and educators. Due to the nature of our purpose, the organisers acted as the main contributors of the event. In addition, we invited contributions to present works on research, development, teaching, learning, and practising of lifelogging devices at the SIE.

4 Agenda

The program consisted of two sessions as shown in Table **??**. The first session was designed to first set the scene for all participants by providing an introductory presentation on lifelogging. Then, a hands-on session provided an opportunity for participants to play with various lifelogging devices. The organisers provided additional information about the capability and limitation of the devices. Audiences were encouraged to share their experience on lifelogging devices too. We created a closed space where participants can safely enjoy the lifelogging experience with our SIE participants, while minimizing recording of other conference participants. Such a living lab experience was our central piece of instalment.

In the second session, we had interactive presentations where invited participants showed a demo system, early research outcomes, or crazy ideas about how to use lifelog data. The presentation was more informal than usual presentations, where other participants were encouraged to express their ideas and opinions. Finally, we had a round-table session to identify some of the core research directions regarding the development and use of lifelog devices in Information Research and Learning.

5 Relevance to the Conference/Significance to the Field

iSchools have its roots in the collection, storage, analysis, and dissemination of the recorded material of human activities. It used to be books and libraries for a couple of thousand years. Web contents on The Internet took over many parts of the place in the last two decades. Sensing data via lifelogging devices (or Internet of Things at large) will take over the significant part of human archiving in the near future. IRLLD 2017 looked into such core issues of Information Research. It also offered an opportunity to familiase various lifelogging devices and obtained data to the iSchool community.

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